

ABSTRACT OF THE DISCLOSURE

In a waste pulping apparatus, an impeller assembly comprises a rotating blade for pulping solid waste to form a slurry, the rotating blade having an axis of rotation, a base and a plurality of ears that axially extend away from the base. The impeller assembly also includes a sieve ring having axially opposed first and second ends, an inner cylindrical surface and an outer cylindrical surface, where the sieve ring encircles the base of the rotating blade at the first end so that a portion of the ears are radially spaced inside the inner cylindrical surface so that the ears rotate within the sieve ring. A plurality of pumping vanes are also provided for pumping the slurry, where each pumping vane has a pumping surface that rotates radially outside the outer cylindrical surface of the sieve ring. Preferably, the pumping vanes can be easily changed to allow for various head condition while providing a predetermined pumping capacity.